

Nationwide® | Purdue Veterinary Price Index

Inaugural Analysis January 2015



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Setting a New Standard in Veterinary Cost Analysis: The Nationwide® | Purdue Veterinary Price Index

Contrary to U.S. government reports, overall veterinary pricing has decreased over the last five years.

Executive Summary: January 2015

The love of pets in the United States has pushed the market value of pet-related products and services up steadily year over year, with the sector continuing to grow even during the recession of the last decade and the slow-paced economic recovery since.¹ Despite the significant role of veterinary services in the pet-care sector, trends in veterinary pricing have been difficult to characterize fully.

The **Nationwide® | Purdue Veterinary Price Index**, a ground-breaking study produced by Nationwide in partnership with the Krannert School of Management at Purdue University, set out to develop a more accurate picture. Drawing from more than 5.3 million pet-health insurance claims from Veterinary Pet Insurance® (VPI), a Nationwide company that is the first and largest insurer of pet health in the United States, the resulting index counters U.S. government estimates of increases in veterinary pricing that track above those for all consumer prices. With this, Nationwide sets a new standard for the understanding of pricing in the companion animal veterinary services sector.

The pet-care industry has been recognized as a considerable force in the U.S. economy, estimated to be worth \$55.72 billion by the American Pet Products Association in 2013, with a projected value of \$58.51 billion in 2014.² The APPA values the veterinary sector at \$14.37 billion (2013). As the popularity of companion animals and the amount spent on them continues to climb, both anecdotal reports from pet-owners and statistical releases from the U.S. government suggest that the cost of veterinary care is climbing faster than all consumer prices. The Consumer Price Index posits an estimated price increase of 8% for all consumer products from 2009 through 2013. For veterinary services, the government estimates a 15% price increase in the same period.


The **Nationwide | Purdue Veterinary Price Index** reveals the opposite, showing that veterinary prices are in fact not outpacing pricing for all consumer goods as government figures show, but are *decreasing overall*. The difference can be attributed to expert researchers' access to a database of transactions numerically robust as to offer a genuine reflection of the value and type of common companion animal veterinary services.

Background

The Nationwide (VPI) database breaks down claims filed by policyholders into specific treatments, with the expense of each treatment separately recorded in the

claims database. The **Nationwide | Purdue Veterinary Price Index** analysis started with this claims database for services purchased by policyholders from 2009 to 2013. The bulk of the database is canines, so the initial focus is on veterinary services for dogs. From the complete set of canine treatments in the database, treatment codes that are not reflective of specific veterinary services for canines were excluded.³ The resulting dataset contains 1,208 distinct treatments for canines. The dataset classifies 1,128 of these treatments as "medical" treatments; the remaining 80 are classified as "well-care" treatments.

<u>Medical</u>	<u>Wellness</u>
Otitis Externa – 300k	Physical Exam – 900k
Atopic or allergic dermatitis – 300k	Vaccination Bordetella – 700k
Pyoderma – 200k	Vaccination DHL-P – 600k
Gastritis - 200k	Heartworm test – 700k
Enteritis -150k	Fecal test – 600k
Osteoarthritis - 150k	Vaccination Parvovirus – 600k
Cystitis – 125k	Vaccination Rabies – 500k
+ 121 other treatments – 4 MM	+ 31 other treatments – 3 MM



To construct a quarterly price index, it is important to have a large number of price observations of specific treatments spread over an entire time period and geographic areas to avoid sampling bias. Because there are far more canine claims than feline claims, the analysis was limited to canine treatments that are commonly observed in the dataset. In particular, only treatments that have at least 5,000 claims over the five-year period from 2009 to 2013 and at least 500 claims each year during this period were considered. This reduces the number of canine medical treatments considered by 89%, from 1,128 to 128, and reduces the number of well-care treatments considered by 53%, from 80 to 30. The resulting dataset of "common" treatments for canines, however, still represents more than 80% of the total value of claims activity.

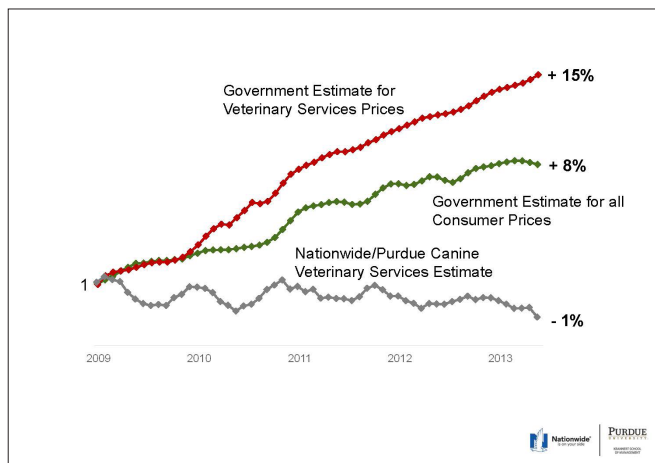
The resulting **Nationwide | Purdue Veterinary Price Index** reflects important differences from the index of veterinary prices released by the U.S. government in these critical ways:

<u>From</u>	<u>To</u>
• Minor focus	• Single focus
• Hundreds of interviews	• Millions of transactions
• Aggregated	• Granular

A more detailed accounting of the methodology can be downloaded from the library section of Nationwidevetchannel.com.

Significant findings

By far the most significant finding is that the prices of veterinary services were not rising more quickly or more sharply than consumer prices overall, despite reports issued by the U.S. government. In fact, the **Nationwide | Purdue Veterinary Price Index** reveals that veterinary prices were rising at a slower rate than consumer prices overall from 2009 to 2013, and had *shown a slight decrease* over the study period.

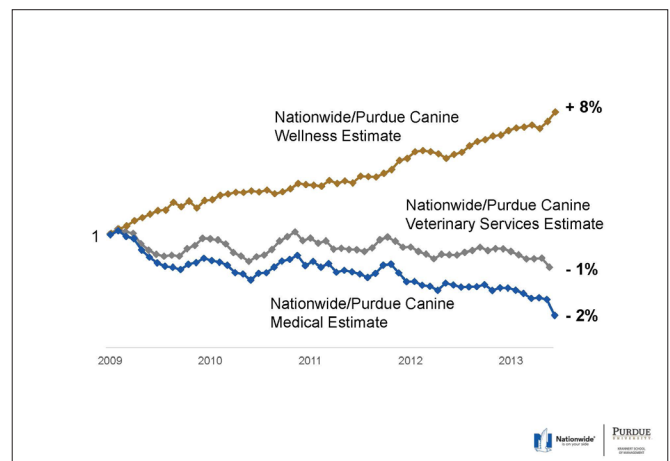


Why the discrepancy? The **Nationwide | Purdue Veterinary Price Index** is based on millions of financial transactions, building a clearer picture of veterinary services and pricing from actual veterinary costs. The index reflects not only transactions but also the larger trend toward preventive and wellness care. By contrast, the U.S. government's aggregated approach is based on hundreds of telephone interviews, its final numbers a single brushstroke in the larger picture of consumer prices.



With experts on veterinary services as part of the team, researchers were able to weight wellness and medical care correctly, and identify that the U.S. government's methodology resulted in an oversampling of some wellness services.

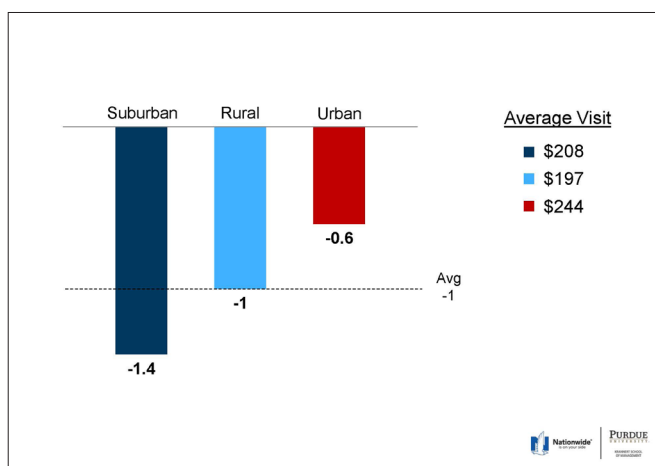
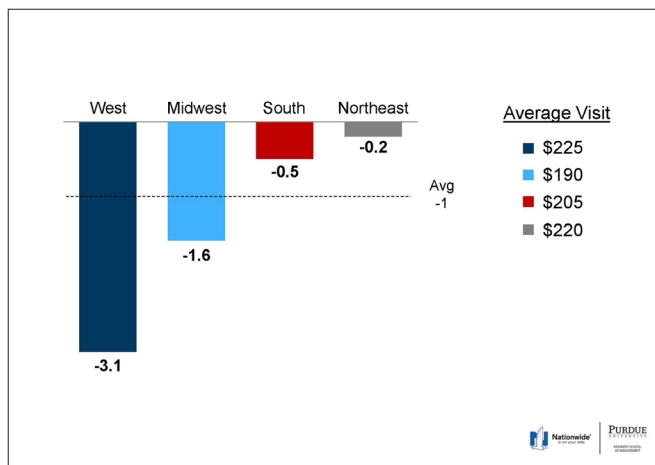
While prices for preventive and wellness care are increasing at the rate of other consumer prices (8% over the study period), sampling these services in the correct proportion relative to medical care (approximately 25% to 75% preventive and wellness to medical) provides an accurate picture of veterinary pricing according to services rendered.



The Nationwide and Purdue researchers' use of monthly rather than annual sampling also aided in providing greater accuracy and proper focus to the overall picture. With the volume of data, correct weighting of samples and expert knowledge of the veterinary industry, the **Nationwide | Purdue Veterinary Price Index** shows that prices for the most common veterinary service, both preventive and wellness as well as medical care, are not only tracking well below the increase in all consumer prices but are also showing a modest 1% decrease overall from 2009 to 2013.

Taking a deeper look

The **Nationwide | Purdue Veterinary Price Index** also breaks down the claims data to examine other trends in veterinary pricing, specifically regional and zonal (i.e., urban, suburban, rural) differences. The researchers found that claims originating in suburban as well as Western areas fell the most, with the West showing a notable decline of 3.1%.



Future

This is the initial high-level view of pricing for veterinary services. Future releases of the **Nationwide | Purdue Veterinary Price Index** will not only track national trends in pricing quarterly, but will also drill down into the data from millions of VPI claims from Nationwide policyholders to examine other trends in veterinary pricing. The national pricing index will be released quarterly at NationwideVetChannel.com, with links shared through social media.

Nationwide considers such uses of its data to be of service not only to the companion animal veterinary community but also to the larger community in the pet-care services industry, as well to individual pet-owners and Nationwide members. The inaugural release of the **Nationwide | Purdue Veterinary Price Index** represents a considerable investment in service to those overlapping communities. In providing data to show essential trends in veterinary service pricing, Nationwide is continuing to deliver on the company's promise to the veterinary community to provide information that will help pet-owners and veterinarians work together as a team for the better health of companion animals.

Future releases of the **Nationwide | Purdue Veterinary Price Index** will be made available on Dr. Carol McConnell's blog for the veterinary community, NationwideVetChannel.com.

Authors

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¹ "Pet Industry Market Size & Ownership Statistics." American Pet Products Association (americanpetproducts.org/press_industrytrends.asp)

² *ibid.*

³ Examples of treatment codes that are excluded include the treatment codes for duplicate claims, taxes and ineligible services such as boarding. These excluded treatment codes represent 17.3 percent of the more than 15 million treatments recorded in the full claims database as being purchased by policyholders during the period 2009-2013.



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